HESPEROCIMEX COCHIMIENSIS NEW SPECIES, FROM BAJA CALIFORNIA, MEXICO

(HEMIPTERA: CIMICIDAE)[1]
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The name *Hesperocimex cochimiensis* is being proposed for the population of cimicids found parasitizing Purple Martins in the Cardon cactus belt of Baja California, Mexico. The species name *cochimiensis* is proposed as a memorial to the Cochimi Indian Nation which occupied most of Baja California; these hardy people became extinct subsequent to the occupation of their lands by a culture foreign to them. A detailed report of the ecology, distribution, taxonomy and cytotaxonomy of the genus *Hesperocimex* is in manuscript form and is to appear in the "University of California Publications in Entomology" series, University of California, Berkeley.

Hesperocimex cochimiensis was collected 28 miles south of Punta Prieta, July 2, 1957; 30 miles south of El Arco, July 4, 1957; and 45 and 9 miles northwest of San Ignacio, July 5, 1957. The first collection was in Baja California Norte and the latter three were from Baja California T. S. Each of the above collections were made from woodpecker nest cavities in the Cardon cactus, *Pachycereus Pringlei;* the host was the Purple Martin, *Progne subis.* The collectors were Raymond E. Ryckman, Dean Spencer, Albert E. Ryckman and Joseph V. Ryckman.

Table 1 is presented as a diagnostic description indicating the morphological differences between *Hesperocimex cochimiensis* and the other species of the genus.

Hesperocimex cochimiensis, new species
(Figure 1)

Body color light brown, (intermediate between golden *H. coloradensis* and dark brown *H. sonorensis*). Head, sparsely clothed with setae, width including eyes 0.73 mm.; interocular 0.58 mm.; length 0.66 mm. Antennal segments, (proximal to distal) 10:19:20:16; sparsely clothed with bristles. Tip of rostrum reaching anterior margin of mesosternum; rostral segments (proximal to distal) 15:13:15. Pronotum, width 1.03 mm.; length 0.42 mm.; lateral margins fringed with long bristles. Wing pads dark on proximal and distal surfaces, central area relatively light. Keel of metasternum triangular, length 0.25 mm.; greatest width 0.3 mm. Coxae separated (fore to hind) 5:17:22. Length of first pair of legs, femur 37; tibia 35; tarsi and claws 18;—second pair of legs, femur 40; tibia 44; tarsi and claws 25;—third pair of legs, femur 50; tibia 64; claws and tarsi 26; legs

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possess stout bristles. Ostiolar peritreme or scent gland present. Abdomen, sparsely clothed with setae; long bristles on margin of abdomen, (first apparent segment to last) bristle numbers 4-3-2-2-2-2-2-2; number of bristles variable on other specimens; a few short bristles on dorsal abdominal surface. Organ of Ribaga located on anterior, lateral, ventral surface of right sixth apparent abdominal segment.

Allotype male similar to holotype female with the exceptions that the long bristles on the margin of the abdomen are more numerous; i.e., 7-4-3-3-2-3-merging to a brush-like condition on posterior abdomen; well developed tibial brushes are present on the inner aspects of the first and second pairs of legs. Male aedeagus straight as shown in Figure 1.

Holotype female (USNM No. 65009) and *allotype* male, collected 28 miles south of Punta Prieta, Baja California Norte, Mexico; July 2, 1957, to be deposited with the U. S. National Museum, Washington, D. C. The host was the Purple Martin, *Progne subis*. Paratypes have been designated from the original collections and the type colony.

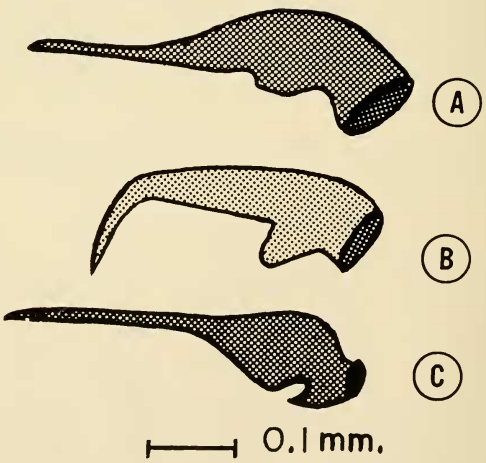

Figure 1. Aedeagi of Males of The Genus *Hesperocimex*. **(A)** Male aedeagus of *H. coloradensis* List, 1925. (Colorado); **(B)** Male aedeagus of *H. sonorensis* Ryckman, 1958. (Sonora, Mex.; type colony); **(C)** Male aedeagus of *H. cochimiensis* Ryckman & Ueshima, 1963, (Baja California, Mex.). The two sibling species, *H. sonorensis* and *H. cochimiensis* are readily separated by the curved aedeagi in males of *H. sonorensis*. Both of these species are readily separated from *H. coloradensis* because the latter is much larger and lighter in color. The illustrations in this figure are oriented as they would be seen in viewing the venter of males under a dissecting microscope. (The illustrations were made by Bioscope projection.)

Diagnostic Comparison of Hesperocimex Species

Species	Head Length ♀	Pronotum Width ♀	Body Color	Wing Pad	Male Genitalia	Hosts	Habitats	Chromosome Complement In The Male			
								2n	Autosome pairs	X Chromosome	Y Chromosome
H. colorodensis	0.74 mm.	1.60 mm.	light golden	pale	straight	Woodpeckers Purple Martins	Tree cavities	42	19	3 (small)	1
H. sonorensis	0.65 mm.	1.06 mm.	dark brown	dark	curved	Purple Martins	Saguaro cavities	42	20	1 (large)	1
H. cochimiensis	0.66 mm.	1.03 mm.	yellowish brown	proximal and distal portions dark	straight	Purple Martins	Cordon cavities	40	19	1 (large)	1

Paratypes are to be deposited with the California Insect Survey Collection of the University of California at Berkeley; the U. S. National Museum, Washington, D. C.; California Academy of Sciences, San Francisco, California; British Museum of Natural History, London, England and the Instituto de Salubridad y Enfermedades Tropicales, Mexico D. F., Mexico. Measurements were made with the aid of a dissecting microscope and an ocular micrometer; one ocular unit equals 0.0166 mm. Unless millimeters (mm.) are given, measurements are in ocular units.

BOOK REVIEW

Insect Pathology. Vol. I. Edited by Edward A. Steinhaus. Academic Press, New York and London, 1963. Pp. 661. Illustrated.

This book is the first of a two volume work that will be a comprehensive treatment of insect pathology. The first volume is composed of seventeen chapters, each by a different author. The entire volume was edited by Edward A. Steinhaus. The first chapter is an introduction by Steinhaus and sets the stage for the ensuing chapters. He defines in his first chapter the meaning of "insect pathology" as whatever "goes wrong" with an insect. This is the broadest interpretation of the word, for, as the next sixteen chapters indicate, this includes physical injuries, disorders brought about by chemicals, genetic diseases, and many other conditions that would cause abnormalities in insects. This first volume also includes discussions on viruses, rickettsiae, microorganisms in healthy insects and various inter-relations encountered in the study of insect pathology.

One helpful point in the format of the book is the outline that precedes each chapter. Each author has prepared a brief outline giving the subjects treated in his particular chapter. This helps the reader locate a particular point or subject and gives one a quick idea of the subject matter better than the table of contents. Each chapter is supported rather well with photographs and a list of references.

This book is indeed what it claims to be, an advanced treatise on insect pathology. It is not an elementary and basic text for beginning college courses. It will, however, be a valuable tool for the advanced student and researcher.—Floyd P. Harrison, *Department of Entomology, University of Maryland, College Park.*